CIVIL-TECH CONSULTANTS AND ENGINEERS

Building & Highway Material Testing Laboratory

NABL - Accredited Laboratory as per ISO / IEC-17025 : 2005

Job No.: CTCE/BBMP/W.No.09/KRIDL/WMM/Gradation/2013-14

01.03.2014

GRADATION FOR WMM
MORTH TABLE-400-11

Client : **Asst. Executive Engineer,** Vidyaranyapura Sub Division, BBMP, Bangalore.

Agency : **Technical Manager,** KRIDL, Bangalore.

Name of Work : Improvements and Asphalting to Balance BEL Layout roads (1st to 5th Block) in Ward No.09 in Vidyaranyapura Sub Division, BBMP, Bangalore.

Reference : AEE/VSD/PR/445/1/2013-14 Dated: 28.02.2014

Date of Testing : 01.03.2014

Material : WMM

Sample Location : WMM Mix Plant

Oven Dry Wt (gm): **25100**

Is Sieve Size in mm	Weight Retained (gm)	Cumulative Weight Retained (gm)	Cumulative % of Retained	Cumulative % of Passing	Spec.Limits
53	0	0	0	100	100
45	865	865	3.4	96.6	95-100
22.4	5520	6385	25.4	74.6	60-80
11.2	5790	12175	48.5	51.5	40-60
4.75	4005	16180	64.5	35.5	25-40
2.36	3890	20070	80.0	20.0	15-30
0.600	2260	22330	89.0	11.0	8-22
0.075	2485	24815	98.9	1.1	0-8

Note:

1. The report shall not be reproduced, except in full, without the written approval of the laboratory.
2. The results indicated above are based on the tests carried out on the samples received in the laboratory.
3. Any Query regarding the report must be reported within 15 days from the date of testing.

AE. W.09

M/s. Civil-Tech Consultants & Engineers
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Job No.: CTCE/BBMP/W.No.09/KRIDL/SDBC/Bitumen/2013-14 08.03.2014

BITUMEN CONTENT AND GRADATION DETERMINATION OF SEMI DENSE BITUMINOUS CONCRETE MIX

AASHTO T 164 & AASHTO T 30

CLIENT	**Asst. Executive Engineer,** Vidyaranyapura Sub Division, BBMP,
AGENCY	**Technical Manager,** KRIDL, Bangalore.
NAME OF THE WORK	Improvements and Asphalting to Balance BEL Layout roads (1st to 5th Block) in Ward No.09 in Vidyaranyapura Sub Division, BBMP, Bangalore.
REFERENCE	AEE/VSD/PR/445/1/2013-14 Dated: 28.02.2014
SAMPLE I/D	Asphalting to Balance BEL Layout roads (1st to 5th Block) in Ward
DATE OF TESTING	08.03.2014

BITUMEN CONTENT DETERMINATION

Description	Trail 1	Trail 2
1. Weight of Mixture before Test, g	500	500
2. Weight of Mixture after Test, g	474	475.5
3. Weight of Asphalt and Mineral matter Extracted,	-	-
4. Weight of Mineral Matter, g.	-	-
5. Weight of Ash, g		
6. Weight of Bitumen Extracted, g. (corrected)	26	24.50
7. Bitumen content in %	5.20	4.90
8. Average	**5.05**	

GRADATION AFTER EXTRACTION

SIEVE SIZE	Trail 1				JOBMIX
mm	Weight Retained, gm	% Retained	%Cummulative Retained	% Passing	Gradation
13.2	0	0	0	100	100
9.5	38.23	8.07	8.07	91.93	90-100
4.75	260.4	54.94	63.00	37.00	35-51
2.36	57.12	12.05	75.05	24.95	24-39
1.18	43.18	9.11	84.16	15.84	15-30
0.3	28.59	6.03	90.19	9.81	9-19
0.075	26.41	5.57	95.77	4.23	3-8

SIEVE SIZE	Trail 2				JOBMIX
mm	Weight Retained, gm	% Retained	%Cummulative Retained	% Passing	Gradation
13.2	0	0	0	100	100
9.5	30.1	6.02	6.02	93.98	90-100
4.75	240.3	48.06	54.08	45.92	35-51
2.36	92.17	18.43	72.51	27.49	24-39
1.18	53.78	10.76	83.27	16.73	15-30
0.3	28.45	5.69	88.96	11.04	9-19
0.075	22.56	4.51	93.47	6.53	3-8

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